

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte TOSHINORI TANAKA, KYOUHEI YAMAMOTO,  
AKIHIRO DAIKOKU, AKIHIKO IMAGI,  
YOSHIO YOSHIKUWA and MITSUYUKI TSUMURA

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Appeal No. 2003-1188  
Application 09/987,374

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HEARD: 20 November 2003

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Before JERRY SMITH, FLEMING and BLANKENSHIP, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-5. Claims 6-10 stand withdrawn from consideration by the examiner as the result of a restriction requirement.

The disclosed invention pertains to an armature for a dynamo-electric machine that prevents the occurrence of unbalanced currents flowing through brushes which supply an electric current to coils of the armature.

Representative claim 1 is reproduced as follows:

1. An armature for a dynamo-electric machine comprising:

a shaft;

a core, secured to said shaft, having a plurality of slots extending in an axial direction formed on an outer circumferential surface of said core;

a coil comprising a plurality of coil portions formed by simultaneously winding wires a plurality of turns around a pair of said slots separated by a predetermined number of said slots and offsetting each of said coil portions in the circumferential direction of said core, wherein at least one pair of adjacent coil portions share a common one of said slots;

a commutator secured to said shaft, said commutator comprising a plurality of segments; and

a plurality of equalizing connectors for permanently electrically connecting pairs of said segments that should have the same electric potential, so that each of pairs of said coil portions that should have the same electric potential has a substantially equal electrical potential.

The examiner relies on the following references:

Baldwin	2,632,125	Mar. 17, 1953
Aoki	4,532,449	Jul. 30, 1985
Rabe	4,635,349	Jan. 13, 1987

Claims 1-5 stand rejected under 35 U.S.C. § 103(a). As evidence of obviousness the examiner offers Aoki in view of Baldwin with respect to claim 1, and Rabe is added to this combination with respect to claims 2-5.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

### **OPINION**

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-5. Accordingly, we affirm.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert.

denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered and are deemed to be waived by appellants [see 37 CFR § 1.192(a)].

We consider first the rejection of claim 1 based on the teachings of Aoki and Baldwin. The examiner essentially finds that Aoki teaches the invention of claim 1 except for the claimed plurality of equalizing connectors. The examiner cites Baldwin as teaching the claimed plurality of equalizing connectors. The examiner finds that it would have been obvious to the artisan to modify the armature of Aoki to have the

equalizing connectors of Baldwin for the purpose of reducing the unequal voltages that may occur in the winding and, therefore, improving the efficiency of the machine [answer, pages 3-4].

Appellants argue that neither Aoki nor Baldwin teaches the claim recitation that the coil portions are formed by simultaneously winding wires. Appellants assert that the coil portions of the applied prior art are wound sequentially and not simultaneously. Appellants also argue that the examiner has not set forth a motivation for modifying the cited references. Appellants dispute the examiner's position that the recitation of "simultaneously winding" is not entitled to patentable weight because it is a "product-by process" limitation of a structural component [brief, pages 5-7].

The examiner responds that Aoki discloses the structural limitations of the end product claimed by appellants. The examiner asserts that there is no structural difference between an armature which has the coils formed simultaneously and an armature having the coils formed sequentially. The examiner also asserts that Baldwin does teach the coil portions being formed simultaneously. With respect to the motivation to combine the references, the examiner notes that the equalizing connectors of Baldwin are disclosed to solve the problems suffered by the Aoki armature [answer, pages 6-10].

Appellants respond that the examiner has provided no rationale as to how or why the coil formed by simultaneously winding wires is the same as, or similar to, any of the

coils disclosed by the prior art. Appellants also dispute the examiner's assertion that Baldwin teaches coil portions being formed simultaneously [reply brief].

We will sustain the examiner's rejection of claim 1 for reasons argued by the examiner in the answer. Although we agree with appellants that there is no disclosure within either of the prior art references that the coil portions are formed simultaneously, we also agree with the examiner that the limitation within claim 1 that the coil portions are formed by simultaneously winding wires a plurality of turns around a pair of slots does not structurally differentiate the coil structure of claim 1 from the coil structure of Aoki. The example shown in appellants' Figures 1 and 2 shows a lap winding technique using four different nozzles which simultaneously form four coils at the same time. It is clear from these figures and the corresponding description that the four coils 108-111 are separate and distinct and do not interfere with each other. Since these four coils do not interfere with each other, the structural result from placing these four coils simultaneously or sequentially is the same. In other words, the product that results from placing these coils simultaneously is the same as the product that results from placing these coils sequentially because they are separate and distinct. The examiner is correct that Aoki teaches an armature which uses lap winding of the type recited in claim 1. The examiner is also correct that Baldwin teaches equalizing connectors for solving the exact problem that the armature of Aoki would otherwise suffer. Appellants have offered no evidence that the structural properties resulting from

forming the coils simultaneously is different from the structural properties of the coils in Aoki regardless of how the Aoki coils are formed. Therefore, we find that the examiner has established a clear prima facie case of obviousness which case has not been persuasively rebutted by appellants.

We now consider the rejection of claims 2-5 based on Aoki, Baldwin and Rabe. We note that appellants have not separately argued this rejection, but have indicated, instead, that these claims stand or fall with claim 1 [brief, page 3]. Since we find that the examiner has established a prima facie case of obviousness with respect to these claims, and since appellants have offered no additional arguments in rebuttal, we sustain the rejection of these claims for the same reasons discussed above with respect to claim 1.

In summary, we have sustained each of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 1-5 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

**AFFIRMED**

JERRY SMITH )  
Administrative Patent Judge )

Appeal No. 2003-1188  
Application No. 09/987,374

MICHAEL R. FLEMING  
Administrative Patent Judge

HOWARD B. BLANKENSHIP  
Administrative Patent Judge

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